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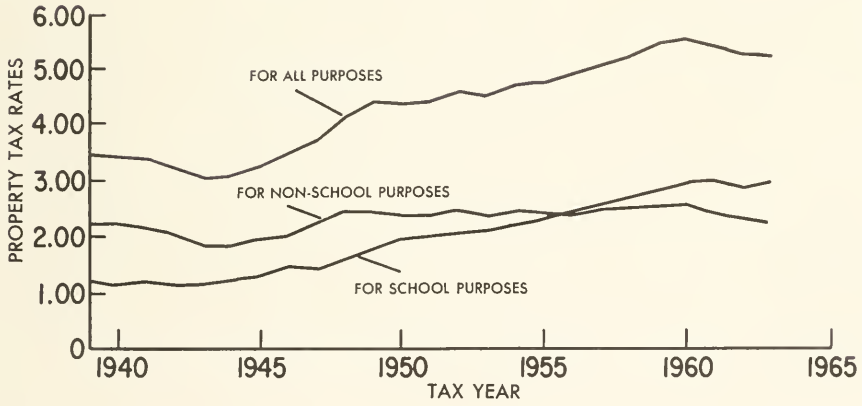
Patterns of Expenditures Among Rural New Hampshire School Districts

By Harold C. Grinnell



Station Bulletin 491
Department of Resource Economics
Agricultural Experiment Station
University of New Hampshire
Durham, New Hampshire

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Foreword

School districts in New Hampshire are required by statute to hold a meeting annually between March first and April twentieth for the purpose, among other things, of adopting a budget to be used as a basis for determining the amount of money to be appropriated and raised in support of schools. In New Hampshire, nearly ninety percent of the school budget is raised by local taxes, mostly on property. Such a weighty dependence on the local property tax is not conducive to equal educational opportunity among school districts which vary extensively with respect to social and economic conditions. There are extreme variations in taxable wealth among towns and decisions concerning school expenditures by voters in the poorer districts are influenced by what they can afford, thus causing considerable variation in expenditures per pupil and per capita.

Property tax rates have been rising during the past twenty years, largely due to higher school costs. While the tax rate for non-school purposes has remained relatively constant, the proportion of the total tax levy for schools has increased from 34.9 percent of the total in 1940 to 57.2 percent in 1963. The average tax rate for schools has exceeded the tax rate for non-school purposes since 1956 (see cover page).

The consolidation of small schools in New Hampshire through the organization of cooperative districts, or authorized regional enrollment areas (AREA), is not first a matter of economy, but rather of equal educational opportunity. It is important that the results of research in public education be interpreted in these terms. Surely, fewer but larger schools can provide better facilities, more comprehensive programs, fewer pupils per teacher, and better trained teachers in their respective subjects.

August 1967

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Purpose and Plan of Study

The objective of this study is to determine the existence, or non-existence, of definite patterns of expenditures for the support of public education among the school districts of rural New Hampshire.[1]

The background for this study is largely the statistical mimeographed material published and distributed by the State Department of Education. Supplementing this material are the U. S. Census and the "Town Property Survey Report of 1957," by the State Planning and Development Commission. The dependent variables include:

1. Expenditures or costs per pupil and per capita for both elementary and secondary schools.
2. The resulting property tax rates for support of schools.

The independent variables include:

1. Number of resident elementary and secondary pupils in school.
2. Population totals and trends.
3. Taxable wealth per pupil and per capita.
4. Distribution of taxable property by characteristics.

Interrelationships of variables also receive some attention.

Many scatter diagrams were prepared as a basis for analysis. The deviations were great particularly among the more sparsely populated districts.

The study includes only those districts having a population of 2,500 or less. On this basis only two cooperative districts qualified. Included are 154 districts distributed according to population as follows:

Under 500	53 districts
500 to 999	45 districts
1,000 to 1,499	33 districts
1,500 to 1,999	11 districts
2,000 to 2,500	12 districts

The interpretation of numerous scatter diagrams indicated that the study should be limited to rural districts. With few exceptions the costs per pupil among the more populous districts fell within a relatively

[1] For an analysis of variations among school districts in New Hampshire in total equalized valuation and equalized valuation per capita, costs per pupil, dropouts, and relation between size of high school and progress in college see Harold C. Grinnell, *Public Education in New Hampshire, — An Economic Appraisal*, University of New Hampshire Agricultural Experiment Station Bulletin 481, March 1964.

narrow range, and no other pattern was detected. There is a tendency for costs per pupil to decline as population increases for both elementary and secondary education. The range between the lowest and highest costs per pupil is much greater among districts of low population which are effected materially by other independent factors.

Explanation of abbreviated statements:

K-12 refers to all grades from kindergarten through grade twelve.

ADM refers to Average Daily Membership of resident pupils, exclusive of tuition pupils in attendance.

"Resident property" refers to value of property owned by local residents. For a more complete explanation see pages 21 and 22.

AREA refers to Authorized Regional Enrollment Area as distinguished from a Cooperative District.

High school and secondary school are synonymous terms.

Number of Pupils Related to Expenditures

There is some evidence of economies of scale when relating the number of resident pupils to expenditures per pupil.[1] It must be remembered, however, that the number of pupils is only one of several factors which influence expenditures for education. Obviously, if the number of pupils in a district is doubled, the costs per pupil need not also double, assuming influential factors other than enrollment remain constant. When comparing two separate districts, it is conceivable that a district with 100 resident pupils might have much lower costs per pupil than another with 200 pupils, because of factors other than enrollment. In this respect, the analysis exposes extreme deviations from averages.

Table 1 gives the relation between the total number of resident pupils and the range, average and median expenditures per pupil for rural districts grouped according to the number of resident pupils. For all 154 districts, the range in expenditures per pupil is from $228 to $742, a difference of $514. Both of these extremes exist among districts having fewer than 150 pupils. The range between the extremes for groups of districts having more than 150 resident pupils is only about one-third of the range for those groups of districts with fewer than 150 pupils. The average expenditures per pupil, however, decline as the number of pupils increases, thereby indicating some economy as a result of more

Table 1. Relation of Total Number of Resident Pupils to Expenditures per Pupil, all Grades K-12.

Number of pupils	Number of districts	Expenditures per pupil		
		Range	Average	Median
Under 50	15	$261-650	$456	$450
50 to 99.9	30	228-683	412	389
100 to 149.9	26	309-742	404	390
150 to 199.9	23	309-488	370	360
200 to 249.9	12	308-434	361	348
250 to 299.9	20	285-471	359	345
300 and over	28	282-427	341	337
All districts	154	$228-742	$385	$365

pupils. Because of the prevalence of the property tax as the major source of revenue in support of public education, there is evidence here that such support is more burdensome on some districts than on others. Some districts have a small taxable wealth per pupil, while others enjoy a high taxable wealth per pupil. This and other factors will be discussed subsequently.

[1] Economies of scale exist when the cost (expenditure) per pupil drops as the scale, that is, school size as measured by enrollment, increases.

Figure 1 is a scatter diagram showing the relation between the total number of resident pupils and expenditures per pupil. The average expenditure is $385 for all 154 districts. The minimal range of expenditures exists among districts having more than 350 pupils. Rural districts having few resident pupils vary extremely in expenditures per pupil.

Three districts which maintain a public high school for fewer than forty resident pupils have extremely high expenditures per high school pupil, an average of $1,055 (Table 2). The average expenditures per pupil decline as the number of pupils increases to the extent that thirteen districts maintaining a high school for 100 or more pupils have average costs per pupil of $474. or considerably less than one-half of the expenditures for the three districts with fewer than forty pupils. Districts which do not maintain a high school. and appropriate funds for tuition payments to other districts (and in many instances costs of public transportation) also experience some decline in expenditures per pupil as the number of pupils increases, but such a decline is much less than for districts maintaining a small high school. Aside from the economy to be obtained by abandoning small high schools and sending pupils elsewhere on a tuition basis, there is the all-important objective of equal educational opportunity. Two of the three districts having extremely high costs per high school pupil, however, are at a disadvantage because of remoteness from any other high schools.

Table 2. Relation of Number of High School Pupils to Expenditures per High School Pupil for Districts Maintaining a High School and Districts not Maintaining a High School.

Number of high school pupils, ADM	Number of districts	Average number of pupils	Average costs per high school pupil
	Maintaining a public high school		
Under 40	3	28.6	$1,055
40 to 69.9	9	62.1	584
70 to 99.9	9	83.9	554
100 and more	13	117.0	474
	Not maintaining a public high school		
Under 40	73	22.4	$ 477
40 to 69.9	35	55.4	452
70 to 99.9	9	80.3	452
100 and more	3	120.4	418

Figure 2 offers further evidence of some economies of scale. Costs per pupil decline as the number of pupils increases. It must be recognized, however, that the larger high schools offer better educational opportunity at considerable expense. Otherwise. the decline in expenditures per pupil would be much greater than indicated here. The relation

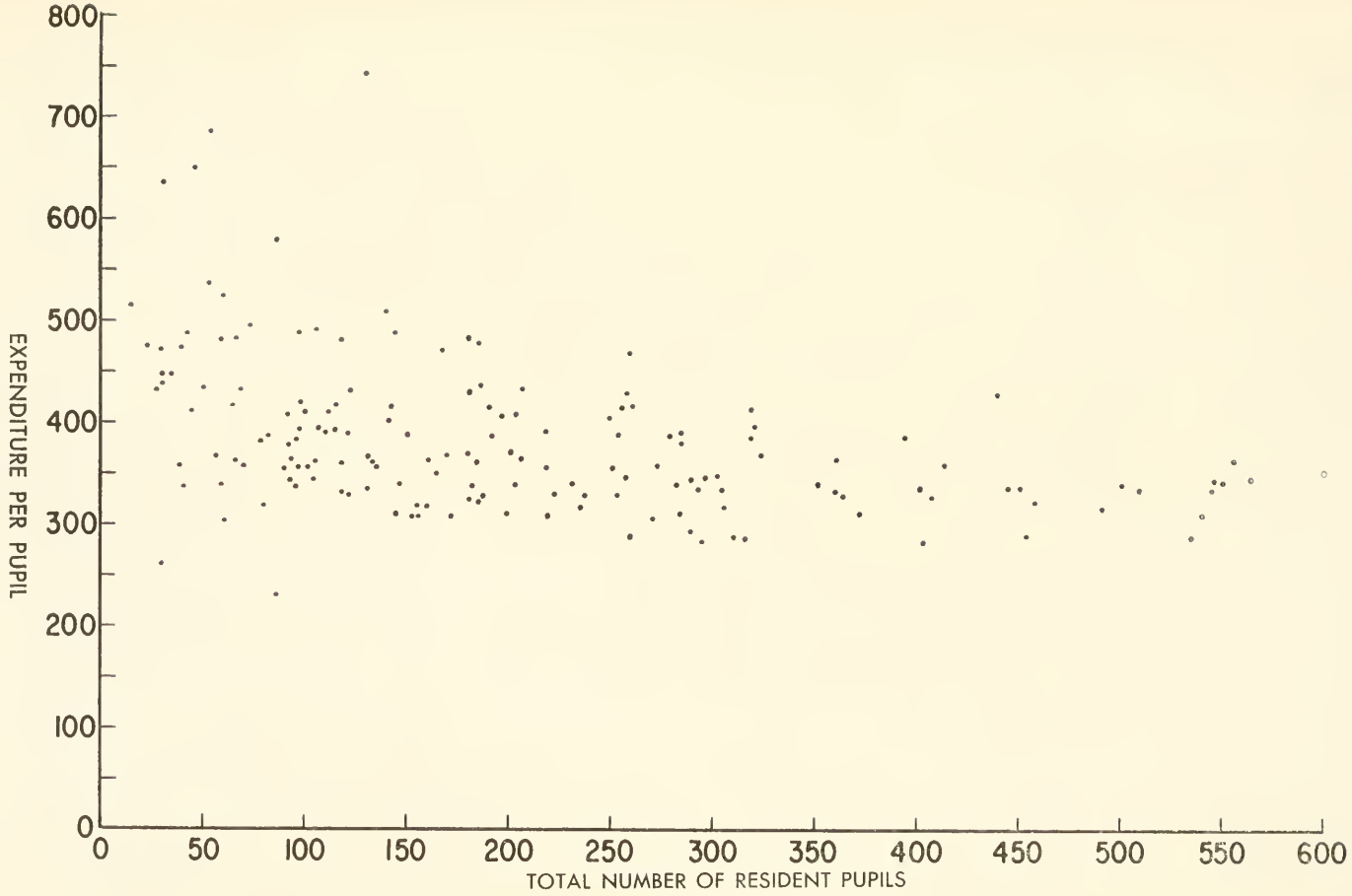

Figure 1. Relation of the Total Number of Resident Pupils to Expenditures per Pupil — Grades K-12.

between the number of high school pupils and expenditures per pupil for those districts which maintain their own high school is quite different. For this group of districts, expenditures per pupil decline rapidly for high schools having fewer than eighty pupils.

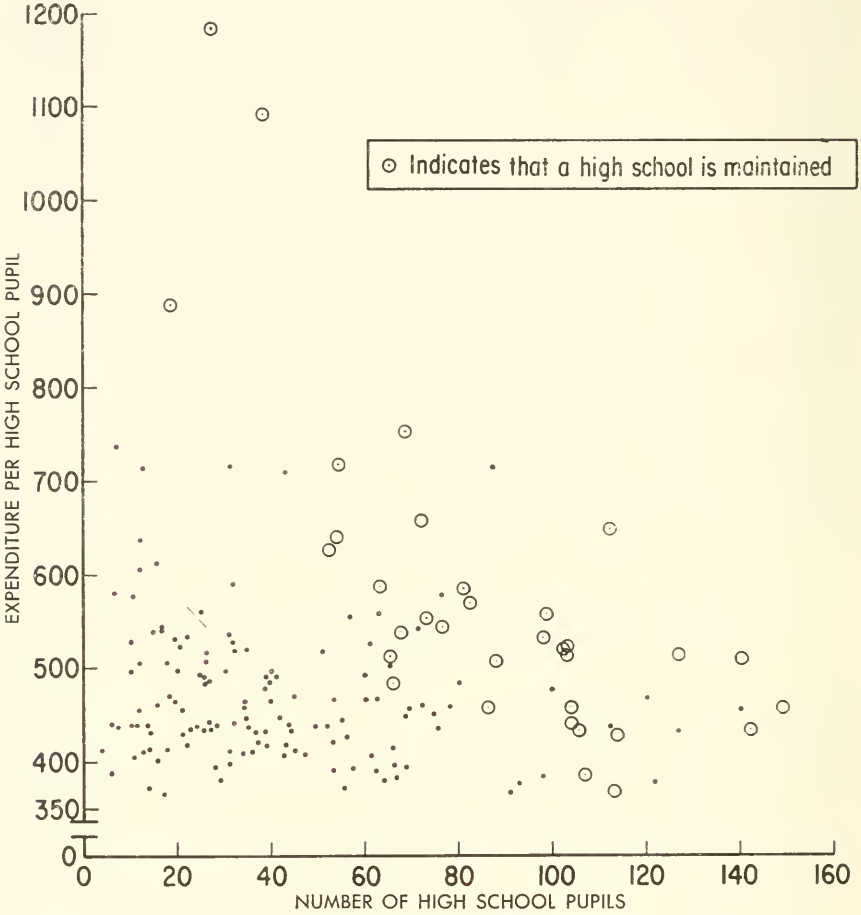

Figure 2. Relation of Number of High School Pupils to Expenditures per High School Pupil.

The relation between the number of resident elementary pupils and expenditures per pupil is shown in Table 3, but on a somewhat different scale from that for high school pupils. The average expenditure per pupil declines from $442 for twenty-five districts having fewer than fifty pupils to $288 for twenty districts having 250 or more pupils. Based on the experience of six districts which maintain no schools, and expend an average of $359 per pupil, it would appear more economical for districts with fewer than 100 elementary pupils to transport their

pupils elsewhere on a tuition basis while at the same time taking advantage of larger schools with better facilities and more comprehensive programs.

Economies of scale are evidenced graphically by Figure 3. Expenditures per elementary pupil decline from about $400 to $285 as the number of pupils increases from 50 to 300.

Table 3. Relation of Number of Elementary Pupils to Expenditures per Elementary Pupil.

Number of elementary pupils, ADM	Number of districts	Average number of pupils	Average costs per elementary pupil
Under 50	25	30.7	$ 442*
50 to 99.9	38	75.5	363*
100 to 149.9	33	125.8	338
150 to 199.9	16	174.3	325
200 to 249.9	22	220.3	309
250 and over	20	345.4	288
All districts	154	145.0	$ 349

* Six districts with fewer than 56 pupils maintained no schools, and expended an average of $359 per pupil.

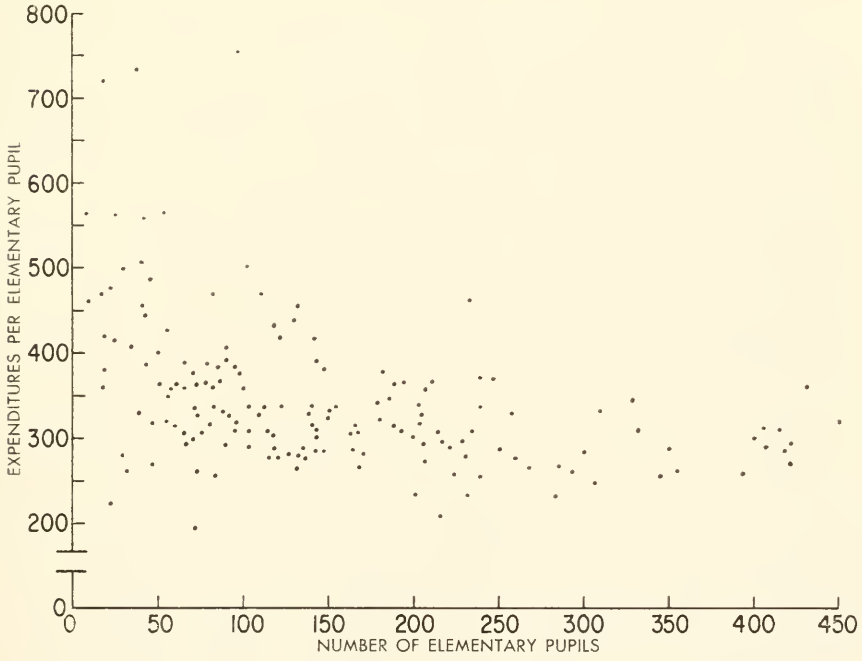

Figure 3. Relation of Number of Elementary Pupils to Expenditures per Elementary Pupil.

Population as a Factor

Population and Number of Pupils

Presumably, the number of resident pupils increases according to population. Averages appear to support this relationship. The relationship, however, is not strong. For instance, one district with a population of 423 has 128 pupils, while another district with a population of 744 has only 122 pupils. It seems appropriate, however, to examine population and its characteristics as a factor in determining expenditure patterns. Table 4 indicates that, on the average, the number of resident pupils from kindergarten through grade 12 increases according to population. On the other hand the range in number of pupils for each population group indicates considerable overlapping. For example, the largest number of pupils, K-12, among districts with a population under 500 was 128 while the smallest number among districts having a population 500 to 599 was 81. It appears that, for each increase of 500 in population, there is an average increase of about 100 pupils. That is to say that, in general, about twenty percent of the residents of any area is in school.

Population and Expenditures per Pupil

A scatter diagram was prepared to indicate the variance of expenditures per pupil according to population (Figure 4 and Table 5). The extremes are found among the fifty-three districts having a population under 500, in which expenditures per pupil, all grades, vary from $228 to $742. Eight of these fifty-three districts have higher expenditures per pupil than for any district in the other population groups. Also, the two lowest expenditures per pupil are found in this group. The general pattern is for the range of expenditures per pupil to narrow as population increases, and for the average to decline among the three population groups under 1,500. According to the data in Figure 4, expenditures per pupil decline from $445 for districts having a population of 100 to a minimum of $350 for districts having a population of about

Table 4. Relation of Population to Number of Resident Pupils (ADM).

Population	Average Daily Membership (ADM) Elementary Range	Elementary Ave.	High School Range	High School Ave.	K-12 Range	K-12 Ave.
Under 500	9- 97	53	4- 34	18	13-128	71
500 to 999	60-191	123	21- 72	42	81-253	165
1,000 to 1,499	87-290	204	50- 98	68	143-372	272
1,500 to 1,999	110-392	257	53-107	91	163-491	348
2,000 to 2,500	262-430	372	103-145	122	393-563	494

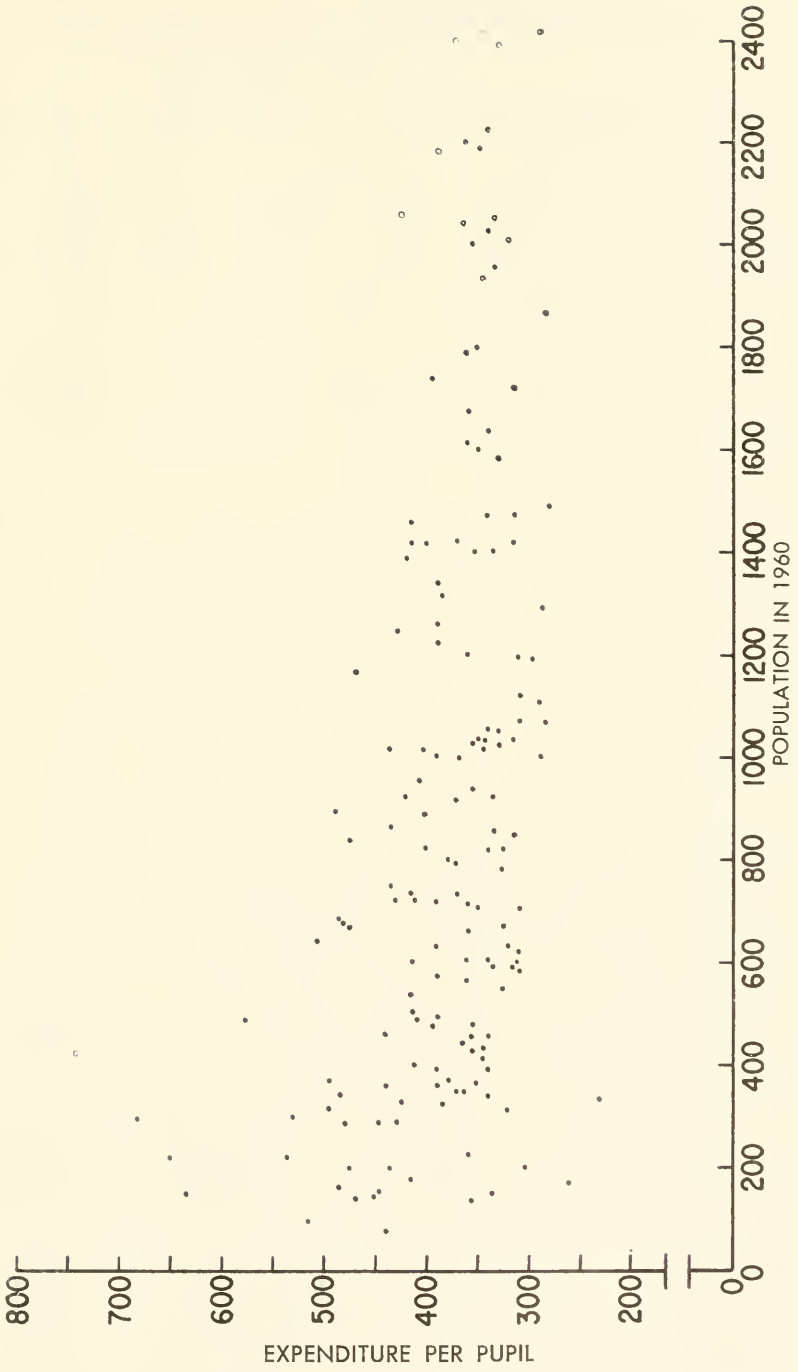

Figure 4. Relation of Population to Expenditures per Pupil — K-12.

Table 5. Relation of Population to Expenditures per Pupil, 154 Districts.

Population	No. of districts	Expenditures per Pupil: Elementary Range	Elementary Ave.	High School Range	High School Ave.	K-12 Range	K-12 Ave.
Under 500	53	$195-751	$403	$364-890	$493	$228-742	$426
500 to 999	45	253-503	340	397-1179	504	309-507	379
100 to 1.499	33	207-460	315	371-752	486	285-471	353
1,500 to 1.999	11	249-372	302	377-583	466	282-414	345
2,000 to 2.500	12	228-362	293	432-651	473	291-427	347

1.600. Differences in average expenditures per pupil for the higher population groups are relatively insignificant. However, the amount of variance cannot be explained on the basis of total population alone.

Population and Schools Maintained

The proportion of districts maintaining a high school increases as population increases (Table 6). There is some significance, however, that six of the twenty-three districts having a population of 1.500 to 2,500 do not maintain a high school but send their pupils elsewhere on a tuition basis.

Of the eighty-eight rural districts having a population under 1,000, six maintain no schools and send all pupils to neighboring districts on a tuition basis. Seventy-six districts maintain only elementary schools and six maintain both elementary and secondary schools (Table 7). The average number of resident pupils (ADM) and the proportion of pupils in high school increases with the multiplicity of schools maintained. There is no appreciable difference in expenditures per elementary pupil regardless of the schools maintained. However, the expenditures per high school pupil were much greater for the six districts maintaining a

Table 6. Relation of Population to Number of Districts Maintaining a High School.

Population	Number of districts	Number of high schools maintained	Percent of districts maintaining a high school
Under 500	53	1	1.9
500 to 999	45	7	15.6
1,000 to 1,499	33	9	27.3
1,500 to 1,999	11	8	72.7
2,000 to 2,500	12	9	75.0
All districts	154	34	22.1

Table 7. Comparison of Rural Districts Having a Population Under 1,000 on the Basis of Whether There is Maintained Elementary and Secondary Schools.*

Items	Rural Districts Under 1,000 Population Schools Maintained		
	None	Only Elem.	Elem. & H. S.
Number of districts	6	76	6
Average number of ADM:			
Elementary	33.0	81.7	118.8
High School	9.4	27.6	45.8
Percent of total ADM in high school	22.2	25.3	27.8
Expenditures per pupil;			
Elementary	$359	$376	$366
High school	$562	$466	$842
Average percent of property resident	51.5	55.7	63.5
Average school tax rate per $1,000	$13.17	$17.42	$23.30
Paid for high school transportation:			
Number of districts	5	30	5
Average amount	$986	$2,776	$2,775

* Ten districts in which a private school existed were excluded.

small high school. Moreover, these six high school districts had a much higher tax rate per $1,000 of equalized valuation. It is noted that the proportion of taxable property owned by permanent residents was 51.5 percent for six districts maintaining no schools, 55.7 percent for the seventy-six districts maintaining only elementary schools, and 63.5 percent for the six districts maintaining both elementary and secondary schools, not a difference of great significance in view of the extreme variations among individual districts.

Of fifty-one districts having a population between 1,000 and 2,500, and in which there were no private schools, twenty-four maintained a high school (Table 8). The group of high school districts had twenty-six percent more elementary pupils and twenty-eight percent more high school pupils. The expenditures per elementary pupil were approximately the same for both groups of districts. The expenditures per high school pupil, however, were $90 greater for districts maintaining a high school, again indicating the high costs of maintaining a small high school over sending pupils to neighboring districts for secondary education on a standard or contract tuition basis. The twenty-seven non-high school districts had an average of 67.3 percent of property resident compared to 57.8 percent for the twenty-four high school districts. Also the former group had a somewhat lower school tax rate. Only nine of the twenty-seven non-high school districts provided public transportation for high school pupils compared to nineteen of the twenty-four high school districts. The average amount, however, was twice as great. There is some evidence here of ability to pay for many districts.

Table 8. Comparison of Rural Districts Having a Population of 1,000 to 2,500 on the Basis of Whether or not the District Maintains a High School.*

Items	Population 1,000–2,500	
	No high school maintained	High school maintained*
Number of districts	27	24
Average population	1,343	1,686
Average number of pupils (ADM):		
Elementary	227.3	286.3
High school	73.9	94.5
Expenditures per pupil:		
Elementary	$313	$306
High school	$435	$525
Average percent of property resident	67.3	57.3
Average tax rate per $1,000	$ 19.07	$ 21.23
Paid for high school transportation:		
Number of districts	9	19
Average amount	$4,560	$2,315

* Five districts in which a private high school was located were excluded.

Population and Equalized Valuation

It is a normal situation for sparsely populated towns to have a smaller total taxable wealth than the more populous communities. On the other hand, some towns of low population, and of a correspondingly small number of resident pupils, have a large amount of non-resident property which causes a high valuation per pupil and per capita. Obviously, one million dollars of taxable wealth in recreational, utility or some other form of property owned by non-residents, would have much more effect on taxable wealth per pupil and per capita for a small town than for a larger community. An examination of the averages in Table 9 supports this hypothesis. The average total equalized valuation increases with the higher population groups, but decreases on a per pupil and per capita basis. Averages, however, indicate a general situation

Table 9. Relation of Population to Total Equalized Valuation, and to Equalized Valuation Per Pupil and Per Capita, 1962.

Population	Equalized valuation of taxable property					
	Total ($000's)		Per Pupil		Per Capita	
	Range	Ave.	Range	Ave.	Range	Ave.
Under 500	$ 319-$11,314	$2,271	$9,208-$102,516	$34,901	$2,030-$26,747	$7,672
500 to 999	1,281- 20,408	4,280	8,777- 110,496	26,331	1,781- 24,528	5,741
1,000 to 1,499	3,019- 27,606	6,871	10,844- 87,140	25,271	2,537- 19,879	5,535
1,500 to 1,999	4,807- 12,599	6,986	11,945- 44,222	21,990	3,116- 7,020	4,020
2,000 to 2,500	5,846- 25,521	10,400	14,279- 46,253	20,754	2,392- 11,595	4,709

but fail to identify specific cases as indicated above and as evidenced by a scatter diagram.

Population and Expenditures per Capita

The range in expenditures per capita is much greater for sparsely populated districts having a population under 500 than for groups of districts having a larger population (Table 10). Averages, however, do not vary greatly regardless of population, again indicating that population alone is not the sole or most important factor affecting expenditures per capita and in no sense is population alone important in determining patterns. In general, however, average expenditures tend to be somewhat higher among sparsely populated towns than among towns more densely populated.

Table 10. Relation of Population to Expenditures per Capita, 154 Districts.

Population	Expenditures per capita					
	Elementary		High School		K-12	
	Range	Ave.	Range	Ave.	Range	Ave.
Under 500	$32-$172	$66	$12-$ 76	$30	$47-$225	$96
500 to 999	43- 77	56	16- 66	29	61- 121	85
1,000 to 1,499	20- 66	52	19- 44	27	42- 103	79
1,500 to 1,999	20- 59	44	16- 31	25	32- 87	69
2,000 to 2,500	28- 71	50	17- 36	26	50- 93	76

Population Trends

The proportion of districts (or towns) experiencing a decline in population from 1950 to 1960 decreased as density of population increased. Of the fifty-three districts having a population under 500, thirty-three or 62.3 percent declined in population (Table 11). It is noteworthy that only three of the twenty-three districts having a population between 1,500 and 2,500 experienced any decline in population. An investigation of the more urban centers having a population of 2,500 or more, but excluding the thirteen cities, reveals that only three of these districts declined in population and none by more than 6.9 percent. All of the thirteen cities increased in population.

Among the 154 school districts, the change in population varied from a decline of 31.7 percent (Eaton, population 151 in 1960) to an increase of 106.7 percent (Atkinson, population 1,017 in 1960). It might be assumed that such extremes would have some relation to other social and economic factors. The 154 districts were separated into two groups, those having a population under 1,000 and those in which the population was between 1,000 and 2,500, and for each group the degree of change

Table 11. The Number and Proportion of School Districts (Towns) Declining in Population, 1950-1960, grouped according to Population in 1960.

Population 1960	Total Number of districts	Districts declining in population	
		Number	Percent
Under 500	53	33	62.3
500 to 999	45	17	37.8
1,000 to 1,499	33	10	30.3
1,500 to 1,999	11	2	18.2
2,000 to 2,500	12	1	8.3
Totals	154	63	40.9

in population was indicated according to the percentage decline or increase in population (Table 12). There is no evidence that the trend in population is of significance in determining patterns of expenditures. There is some tendency for school tax rates to be slightly higher for the more densely populated districts than for the more rural districts, but for neither group is there any consistent pattern as the trend changed from over 10 percent decline to an increase of more than twenty percent. There is some tendency in each group for the percent of taxable property owned by permanent residents to increase with the population trend. Consistent change in equalized valuation per capita and expenditures per capita is not apparent.

Table 12. Relation of Trend in Population to Tax Rates and Other Factors.

Trends in Population	No. of districts	Average population 1962*	School tax rate 1962	% of property resident 1957	Equalized valuation per capita 1962	Expends. per capita 1962
Population under 1,000						
Over 10% decline	24	335	$17.43	53.5	$6,480	$ 93.21
0 to 10% decline	26	504	17.18	52.6	7,326	100.38
0 to 10% increase	18	580	17.09	53.5	7,399	96.00
10.1 to 20% increase	14	657	18.08	56.2	6,377	77.71
Over 20% increase	16	544	18.10	65.8	5,792	85.69
Population 1,000 to 2,500						
Over 10% decline	1	2,004	$20.19	34.7	$5,969	$ 93.43
0 to 10% decline	12	1,268	19.14	51.6	5,186	80.50
0 to 10% increase	12	1,508	20.58	60.7	5,297	77.33
10.1 to 20% increase	12	1,735	19.47	71.4	3,568	65.33
Over 20% increase	19	1,558	20.89	68.8	5,744	79.42

*Estimate based on continuance of 1950-1960 trend.

Distribution of Age Groups According to Population

The proportion of the population in school is reasonably uniform among districts grouped according to population (Table 13). However, there is a slight tendency for the proportion of the citizenry under five years of age to increase as population increases, and for those in the age group of 65 and over to decline, on the average. On the other hand, scatter diagrams comparing the number of persons under fifteen and under twenty-five years of age with total population for each district indicate a much smaller deviation from a regression line of best fit for districts having a population under 500 than for the more densely populated districts.

Table 13. Relation Between Total Population of School Districts and the Distribution of Population According to Selected Age Groups.*

	Percent of population in each age group for districts grouped by total population.				
	Under 500	500 to 999	1,000 to 1,499	1,500 to 1.999	2,000 to 2,499
Number of districts	53	45	33	9**	12
Percent of population in public schools	22.5	22.4	22.9	21.5	22.5
Age Groups					
Under 5	9.8	10.6	10.9	11.3	11.4
5 to 14	19.9	20.5	20.0	21.3	20.4
15 to 24	11.1	11.6	11.5	11.0	11.7
25 to 64	45.4	44.3	44.8	45.4	45.0
65 and over	13.8	13.0	12.8	11.0	11.5
Under 15	29.7	31.1	30.9	32.6	31.8
Under 25	40.8	42.7	42.4	43.6	43.5

* Computed from 1960 census.
** Excludes two districts for which the census includes college students.

It might be assumed that small districts declining in population would have a much smaller proportion of their citizens in the younger age groups than districts experiencing an increase in population. The ninety-eight districts having a population under 1,000 in 1960 were examined to determine this relationship (Table 14). Although the relationship is not significant, there is some tendency for small districts declining in population to have a somewhat smaller proportion of their population under fifteen years of age and a somewhat larger proportion sixty-five and over. By adding the percentages for the first three columns it is noted that districts declining twenty percent or more have 36.9 percent of population under twenty-five years of age compared to 44.6 percent for districts which increased twenty percent or more in population. By adding the last two columns to include all over twenty-four

years of age the comparison is 63.1 percent and 55.4 percent respectively. However, in individual cases there is probably adequate evidence that some attention should be devoted to this relationship when planning for future facilities or joining a cooperative district.

Table 14. Relation of Trend in Population (1950-1960) to Distribution of the 1960 Population by Age Groups, for Districts Having a Population Under 1,000 in 1960.*

Population Trends	No. of districts	Percent of Total Population				
		Under 5	5 to 14	15 to 24	25 to 24	65 and over
Decline:						
20% or more	4	9.0	18.1	9.8	48.5	14.6
15 to 19.9%	6	9.6	20.0	11.2	43.2	16.0
10 to 14.9%	14	9.7	19.2	12.0	45.6	13.5
Under 10%	26	9.3	19.7	12.0	45.2	13.8
Increase:						
Under 10%	18	10.3	21.3	11.2	43.4	13.8
10 to 14.9%	4	11.9	21.7	10.4	44.4	11.6
15 to 19.9%	10	11.5	18.9	10.6	44.1	14.9
20% or more	16	11.4	21.5	11.7	44.0	11.4

* From U. S. Census.

Twelve suburban districts were selected from the Concord, Manchester, Nashua, and Haverhill, Massachusetts areas, and compared with ten rural districts declining more than ten percent, and with all districts, on the basis of distribution of population by age groups (Table 15). The twelve districts increased an average of 31.2 percent from 1950 to 1960. The distribution of the population by age groups for these twelve districts was not significantly different from all districts. The suburban districts have a slightly larger proportion of the inhabitants under twenty-five years of age and a somewhat smaller proportion sixty-five

Table 15. Distribution of Population by Selected Age Groups for Suburban Districts Compared with Rural Districts.

Age Groups	Percent of Total Population		
	12 suburban districts	10 rural districts*	All 152 districts
Under 15	33.4	28.2	31.2
Under 25	44.4	41.3	42.7
25 to 64	44.8	46.0	44.8
65 and over	10.8	12.7	12.5

*Declining in population and having a large proportion of taxable wealth owned by permanent residents.

or more years of age. The ten rural districts, however, had a smaller proportion of its population under fifteen and twenty-five years of age and a larger proportion in the age groups of twenty-five to sixty-four and sixty-five and over. The difference is not great but it does indicate that suburban areas tend to have more young people with children. and are not experiencing a rapid growth in retirees.

A Look at Tax Rates

The annual school district meeting approves a budget which in total is the amount of appropriations in support of the public schools for the ensuing year. After deducting estimated revenues from miscellaneous sources, the net amount is levied as a property tax. The school tax rate, therefore, is merely a ratio between net appropriations and total valuation of taxable property. School appropriations are influenced by such things as ability to pay, minimum needs, and attitude of residents toward the support of schools. Although a tax rate is a resultant, and consequently a dependent factor, it does receive some consideration when determining appropriations at the annual school meeting, and thereby might reflect the social and economic situation prevailing within individual districts.

A scatter diagram was constructed to indicate the relation between expenditures per pupil and school tax rates for both elementary and secondary pupils. There is no apparent tendency for expenditures per pupil to decline under conditions of high tax rates. Expenditures per elementary pupil for districts having a population under 1,000 vary extensively between $195 and $750. These two extreme cases have a tax rate of $10.31 and $10.06 respectively. The larger expenditure is the result of high taxable wealth, whereas the $195 exists in a district of low taxable wealth. With one exception (Loudon, $460) the expenditures per elementary pupil for districts having a population of 1,000 to 2,500 fall within the much narrower range of $207 and $392. In other words, the more densely populated districts fall within the relatively narrow pattern of expenditures per pupil regardless of tax rates. In fact, expenditures per elementary pupil tend to be quite uniform when tax rates are above $22 per $1,000 of equalized valuation.

Average expenditures per high school pupil are much higher than for elementary pupils and the general pattern is for much greater extremes. The extreme cases, however, are those which transport all high school pupils to other districts. The majority of districts which maintain a high school have tax rates in excess of $22 and, with a few exceptions, the expenditures per pupil fall within the relatively narrow range of $400 and $550.

The range between the lowest and highest tax rates is much greater among districts having a small population (Table 16). Average tax rates tend to increase somewhat as population increases. A much larger proportion of the sparsely populated districts have low tax rates as compared to districts of larger population. Only one district with a population of 1,500 or more has a tax rate under $15, and only eleven of the fifty-three districts under 500 population have a tax rate over $22. A large majority of the districts with low tax rates are among those having a small population. This is merely an observation and it is not to be assumed that low tax rates exist just because of small population.

Table 16. The Ranges and Averages of School Tax Rates According to Population.

Population	Number of districts	Tax rates			Number of districts with tax rates:		
		Range		Average	Under	Under	Over
		Low	High		$10	$15	$22
Under 500	53	$ 5.24	$26.13	$16.35	7	22	11
500- 999	45	5.81	30.56	18.89	3	10	18
1,000-1,499	33	7.64	27.79	19.33	2	6	13
1,500-1,999	11	15.19	30.92	20.78	0	0	5
2,000-2,500	12	12.47	25.27	20.65	0	1	3

Of the districts having a population of 1,000 to 2,500, only two had a school tax rate below $12.00 per $1,000 of equalized valuation. Consequently, districts with low school tax rates are mostly limited to those more sparsely populated districts under 1,000 of population. Although a tax rate is a dependent variable resulting from appropriations as related to taxable wealth, it seems appropriate to compare districts with a low school tax rate with those having a higher school tax rate. For this purpose sixteen districts having a school tax rate below $12 are compared with fourteen districts having a tax rate above $23 (Table 17). For each group, districts maintaining a high school or having a private school, were excluded in order to make results more comparable.

Although the districts having a high tax rate had, on the average, more pupils and a somewhat larger population, the average expenditures per pupil were $107 less for elementary pupils, but only $11 less for high school pupils. However, the average percentage of the property tax for schools was much greater for the high tax rate districts, and the average percent of taxable wealth owned by permanent residents was about double that of the low tax districts. Nine of the sixteen districts having low tax rates appropriated money for transportation of high school pupils whereas only four of the fourteen high tax rate districts

made such an appropriation. Of these nine low tax districts, with one exception (61 percent), considerably less than half of the taxable property was owned by resident voters, indicating the liberal support for schools when non-residents pay a larger proportion of the bill.

Table 17. Comparison of Districts with Population Under 1,000, and not Maintaining a High School, on the Basis of Low and High Tax Rates.

Items	16 Districts tax rate below $12			14 Districts tax rate above $23		
	Range		Ave.	Range		Ave.
	Low	High		Low	High	
School tax rate	$ 5.24	$11.78	$ 8.89	$23.05	$27.01	$24.90
Population 1960	98	832	414	197	947	572
Total number of pupils (ADM)	13.1	184.7	88.0	40.2	237.9	135.0
School expenditures per capita	$51	$225	$96	$65	$97	$86
School expenditure per pupil:						
Elementary	$195	$751	$443	$285	$463	$336
High school	364	715	490	381	707	479
All pupils	228	742	450	325	475	368
Percent of population in public schools	13.4	30.3	21.0	19.2	26.4	23.5
Percent of property tax for schools	32.2	70.3	52.7	57.7	91.2	71.9
Percent of property owned by residents	4.0	80.4	35.4	46.0	90.5	70.1
High school transportation provided:						
Number of districts		9			4	
Percent of districts		56.2			28.6	

An examination of the ranges reveals the extremism so prevalent among low tax districts. There is no single reason why these tax rates are low. In a few cases it is apparently because of lack of ability to pay, as opposed to those having a large amount of taxable wealth per capita. In any event, there is no general pattern of expenditures among low tax districts.

Resident Property as a Factor

A more thorough clarification of the term "resident property" or "property resident" seems necessary at this point.

One of the most significant differences in the economy of towns or school districts is the proportion of the taxable wealth owned by local residents. This is particularly true in a state such as New Hampshire where recreational property and seasonal residences are so prevalent. If a large share of the taxable property is owned by non-residents, particularly in towns which are sparsely populated, the year-round residents can appropriate funds liberally without significantly effecting the tax rate.

In 1958, the Planning and Development Commission made a classified inventory of local properties based on the 1957 tax assessment records of town officials. The properties of each town were grouped into economic classes as follows:

Economic Classes	Distribution of New Hampshire Assessed Valuations
Recreational	11.0%
Farming	5.3%
Manufacturing	12.9%
Electric plants	10.8%
Other	59.9%

Recreational types of property include seasonal homes and home sites, the accommodations industry, boys' and girls' camps, and other commercial recreational property.

Farming property includes year-round residential farms, and part-time and commercial farms, but not those farms used as seasonal residences.

Manufacturing property includes manufacturers' land and buildings. mills and machinery, and stock in trade.

Electric plants include all categories of public utility property.

Other local property is comprised basically of permanent homes, rental housing and non-recreational local commercial business, and miscellaneous properties.

To obtain a rough estimate of resident property, the "Farming" and "Other" categories were added together. In view of the decline in number of farms and the expansion of seasonal homes and other recreational properties since 1957, it is not assumed that a high degree of accuracy is attained for current comparison, but it is the best estimate available and probably meets the present need reasonably well.

Since the valuations are based on assessed values rather than equalized valuation, the dollar amounts of the inventories have not been used in this investigation, but rather, the percentages which should prove reasonably similar to the percentage distribution for equalized valuation.

In general, school districts which are fortunate in being so located as to have a large proportion of their taxable wealth owned by non-residents have a large amount of equalized valuation per pupil and per capita. Obviously, this situation makes it possible to provide a more liberal support for schools while at the same time they enjoy a relatively low tax rate on property. An examination of Tables 18 and 19 brings out this relationship.

In rural New Hampshire there is a definite relationship between the proportion of taxable wealth in farms and the total percent of property resident (Table 18). This relationship is more apparent among districts having a population under 1,000. Regardless of density of population, however, districts with a small percent of taxable property in farms have a high equalized valuation and high expenditures per pupil. The school tax rate per $1,000 of equalized valuation is much lower for districts having a population under 1,000 and in which the assessed valuation of farms is less than ten percent of the total valuation. For other groups of districts, their variation is most significant regardless of population.

Table 18. Relation of Proportion of Assessed Valuation in Farms to School Tax Rates and Expenditures, According to Population.

Percent of assessed valuation in farms 1957	Number of districts	Percent of property resident	School tax rate per $1,000 of equalized valuation	Equalized valuation per pupil	School expenditures per pupil
Population under 1,000					
Less than 5%	21	37.6	$12.46	$57,250	$497
5 to 9.9%	15	44.0	14.95	37,310	421
10 to 14.9%	15	55.6	20.02	21,150	391
15 to 19.9%	9	62.7	18.07	27,940	379
20 to 24.9%	13	65.9	18.60	21,380	376
25 to 29.9%	10	59.7	20.44	19,700	349
30% and over	15	78.1	21.42	15,230	351
Population 1,000 to 2,500					
Less than 5%	15	49.2	$18.65	$31,280	$385
5 to 9.9%	8	60.7	19.98	21,160	367
10 to 14.9%	10	57.4	19.75	29,370	346
15 to 19.9%	7	71.2	20.06	18,770	337
20 to 24.9%	2	69.0	21.52	21,550	351
25 to 29.9%	4	78.6	22.96	19,120	320
30% and over	10	79.9	21.48	14,140	311

Since farms comprise a rather limited proportion of the total taxable wealth, it is of greater significance to examine the relation between school support and the total proportion of taxable wealth owned by permanent residents (Table 19). Sparsely populated districts under 1,000 have an extremely high equalized valuation per pupil in those cases where resident valuation is less than forty percent of the total. These districts expend more per pupil while at the same time they enjoy a much lower tax rate than districts having a high proportion of taxable property owned by permanent residents. This relationship is not significant among districts having a population in excess of 1,000. However, regardless of population, there is evidence here of ability to pay. In gen-

eral. the school expenditures per pupil and per capita decline as the proportion of property owned by permanent residents increases.

Table 19. Relation of Proportion of Assessed Valuation Resident to School Tax Rates and Other Factors, According to Population.

Percent of assessed valuation resident 1957	Number of districts	School tax rate per $1,000	Equalized valuation per pupil	School expenditures per pupil
Population under 1,000				
Less than 40%	24	$11.92	$55,160	$476
40 to 49.9%	13	16.30	35,850	424
50 to 59.9%	17	17.60	21,850	361
60 to 69.9%	20	19.64	24,540	386
70 to 79.9%	10	24.31	17,020	393
80% or more	14	20.25	15,140	348
Population 1,000 to 2,500				
Less than 40%	5	$18.76	$29,560	$395
40 to 49.9%	10	17.77	30,390	382
50 to 59.9%	11	19.13	31,280	352
60 to 69.9%	7	21.62	20,590	364
70 to 79.9%	15	20.30	17,950	327
80% or more	8	22.02	14,420	312

Although the percent of property resident is an important factor influencing the support of schools, it is difficult to recognize specific patterns in view of the extreme variations among districts with similar situations. There are eight districts with a population below 500 and which had more than seventy-five percent of taxable property owned by permanent residents in 1957. The expenditures per pupil vary from $228 to $650 (Table 20). The largest amount of equalized valuation

Table 20. Some Facts about Eight School Districts Having a Population under 500 and in which the Assessed Value of Resident Property was more than 75 Percent of the Total in 1957.

Factors	Range		Average
	Low	High	
Population, estimate for 1962	181	469	334
Percent of valuation resident	75.6	91.4	83.7
Number of pupils, ADM	33.3	118.7	78.1
Expenditures per pupil: all grades	$228	$650	$391
Equalized valuation per pupil	$9,208	$28,983	$16,144
School tax rate per $1,000 of equalized valuation	$10.31*	$25.85	$20.98

*The only tax rate below $18.81.

per pupil is more than three times the lowest. With one exception, the school tax rates are all relatively high.

These eight districts employ from one to three elementary teachers, a total of eighteen. Eleven of the eighteen teachers receive a salary between $3,200 and $4,000. Except for two very nominal amounts, these districts do not provide public transportation to high school.

Regardless of the extreme variations it is obvious that small rural districts with a large proportion of taxable wealth owned by permanent residents are giving, or can give, only modest support to public education.

As further evidence of the importance of the proportion of taxable property held by permanent residents, Table 21 gives an analysis of two extreme groups of districts. The eleven group B districts in which a large proportion of the property tax is paid by non-residents, have nearly four times as much equalized valuation per pupil as the group A districts which depend largely on permanent residents for support of schools. Moreover, the group B districts appropriate much more per pupil and are able to render such support with a tax rate only about one-half that of the group A districts.

Table 21. Comparison of School Districts Representing Two Extremes with Respect to Make-Up of Taxable Wealth:

A. Over 30 percent of taxable wealth in farms, and over 75 percent of taxable property owned by permanent residents.

B. Less than 10 percent taxable wealth in farms and less than 32 percent of taxable wealth owned by permanent residents.

Factors	Group A	Group B
Number of districts	13	11
Average population in 1960	314	480
Average equalized valuation: per pupil	$15,535	$58,957
per capita	$ 3,445	$12,068
Average ADM, all grades	196.7	101.5
Average school expenditures: per pupil	$ 336.38	$ 478.91
per capita	$ 74.18	$ 96.23
Percent of property tax for schools	72.7	53.2
Average school property tax: per pupil	$ 344.00	$ 618.18
per capita	$ 76.38	$ 124.64
Average school property tax rate (per $1,000 of equalized valuation)	$ 21.84	$ 11.58

A comparison of school districts on the basis of population by selecting districts occurring within a narrow range with respect to factors other than population is given in Table 22. Such a comparison eliminates exceptional cases so prevalent among the more sparsely populated districts. Included for this purpose are those districts having more than sixty percent of property resident, more than sixty percent of property

tax expended for school support, less than $25,000 of equalized valuation per pupil. and less than $5,000 of equalized valuation per capita. Except for differences in population, number of pupils, and number of high schools. there are no appreciable variations between the two groups on the basis of population alone. Presumably because of the smaller number of pupils. the expenditures per pupil are somewhat higher for the districts having a population under 1.000.

Table 22. Comparison of School Districts on Basis of Population for Districts Having more than 60 Per Cent of Property Resident, more than 60 Per Cent of Property Tax for Schools, Less than $25.000 of Equalized Valuation per Pupil, and Less than $5,000 of Equalized Valuation per Capita.

Items for comparison	Population	
	Under 1,000	1,000 to 2,500
Number of districts	24	20
Average population	599	1,469
Number of high schools maintained	3	8
Average number of pupils	146	346
Average percent of property resident	75.2	76.2
Average percent of property tax for schools	72.8	74.8
Average school tax rate	$22.92	$22.26
Equalized valuation per pupil	$16,385	$15,708
Equalized valuation per capita	$3,970	$3,692
Expenditures per pupil	$370	$325
Expenditures per capita	$90	$76
Paid for high school transportation:		
Number of districts	9	8
Average amount	$3,181	$2,915

High School Transportation

Transportation of elementary pupils is required by statute as a public expense under specified conditions. Public transportation of high school pupils, except those under the age of fourteen years in grades above the eighth, is not required, but is a legitimate expense within the discretion of the school board. Presumably, school districts which have a large proportion of taxable wealth in resident property would be more reluctant to appropriate money for high school transportation because of the tax burden on permanent residents. Other factors undoubtedly receive attention, such as distance to a neighboring high school, and traffic in the more densely populated districts.

Of the school districts having a population under 1,000, only forty-nine percent provided high school transportation compared to 57.1 percent for districts having a population of 1.000 to 2,500 (Table 23).

However, of the districts having less than fifty percent of taxable property owned by residents, approximately two-thirds provided high school transportation regardless of population. As the proportion of resident taxable property increases, the percent of the more sparsely populated districts providing high school transportation declines much more rapidly than the more densely populated districts. A cost of $3,000 for high school transportation for rural districts having a relatively small amount of taxable wealth would have much more effect on the tax rate than for larger districts with much larger amounts of taxable wealth.

Table 23. Relation of Per Cent of Taxable Property Resident (Farms, Homes, and Local Miscellaneous Businesses) to Appropriations for High School Transportation of Pupils*

Percent of property resident	Number of districts		Percent of districts providing transportation
	Total	providing transportation	
	Population under 1,000		
Under 50	37	25	67.6
50 to 74.9	44	18	40.9
75 or more	17	5	29.4
Totals	98	48	49.0
	Population 1,000 to 2,500		
Under 50	15	10	66.7
50 to 74.9	27	16	59.3
75 or more	14	6	42.9
Totals	56	32	57.1
	All 154 districts		
Under 50	52	35	67.3
50 to 74.9	71	34	47.9
75 or more	31	11	35.5
Totals	154	80	51.9

*There are 19 districts which spent nominal sums of less than $250 for transportation, 13 of which spent less than $100. These are not included among the districts providing transportation.

The relationship between taxable wealth per capita and expenditures for public transportation of high school pupils was also examined (Table 24). Among the ninety-eight districts in which population was under 1,000 and taxable property per capita was below $4,000, only about one-fourth provided high school transportation, whereas more than three-fourths of the districts having a valuation per capita of $7,000 or more provided such transportation. Such a relationship is not apparent among the more densely populated districts. For all one hundred fifty-four districts, however, the proportion of districts providing

high school transportation at public expense increases with an increase in taxable property per capita.

Table 24. Relation of Taxable Property per Capita to Appropriations for High School Transportation of Pupils.

Taxable property per capita	Total	Number of districts providing high school transportation	Percent of districts providing transportation
	Population under 1,000		
Under $4,000	27	7	25.9
$4,000 to $6,999	38	15	39.5
$7,000 or more	33	26	78.8
Totals	98	48	49.0
	Population 1,000 to 2,500		
Under $4,000	30	17	56.7
$4,000 to $6,999	18	11	61.1
$7,000 or more	8	4	50.0
Totals	56	32	57.1
	All 154 districts		
Under $4,000	57	24	42.1
$4,000 to $6,999	56	26	46.4
$7,000 or more	41	30	73.2
Totals	154	80	51.9

There are eleven of the ninety-eight districts having a population under 1,000 and in which more than seventy-five percent of the property is resident owned, and in which the equalized valuation of property is under $4,000 per capita. Only one of these eleven districts provided any funds for high school transportation. Of the fifty-six districts having a population between 1,000 and 2,500, twelve districts had an economy as indicated above. Four of the twelve districts provided high school transportation. With one exception, $17.96, all of the above five districts had a school tax rate between $22.37 and $30.92 per $1.000 of equalized valuation. Of all of the twenty-three districts above, seven had a tax rate below $19 but none of these (except the one $17.96) appropriated funds for high school transportation. In general, the tax rates of the five districts making such an appropriation were above average.

Equalized Valuation Per Resident Pupil

Based on previous investigations, it would appear that grouping districts according to equalized valuation per resident pupil should be examined without reference to population or any other subdivision. Some districts are so fortunately located as to have large amounts of taxable property owned by non-residents, such as recreational facilities, seasonal occupants, or public utilities. The addition of a few million dollars of non-resident property has much more effect on the small sparsely populated districts than on the larger districts. Accordingly, the total equalized valuation of taxable wealth should have more effect on appropriations per pupil among the smaller districts.

For purposes of comparison, all one hundred and fifty-four districts have been divided into seven groups according to equalized valuation per resident pupil (ADM) (Table 25). In each group there are one or more high schools maintained and there are two or more districts in each group having a population in excess of 1,000. A rather large proportion of those districts with an equalized valuation over $30,000 per pupil, have experienced a decline in population from 1950 to 1960. Districts having more than $50,000 of taxable property per pupil have a much smaller population and a smaller number of pupils than other groups. In other words, when grouping school districts according to equalized valuation there is no apparent tendency toward population predominating any group.

Table 25. Some Characteristics of School Districts Grouped According to Equalized Valuation Per Resident Pupil.

Equalized valuation per ADM	Number of districts	Number of high schools	Average population	Percent of districts: Declining in population	Percent of districts: Over 1,000 population	Average number of pupils, all grades
Under $15,000	34	5	901	41.2	41.2	210
$15,000 to $19,999	38	12	999	31.6	42.1	230
$20,000 to $24,999	21	6	1,108	38.1	52.4	250
$25,000 to $29,999	13	4	853	38.5	38.5	175
$30,000 to $39,999	17	4	670	47.1	17.6	137
$40,000 to $49,999	13	2	942	53.8	38.5	177
$50,000 and over	18	1	483	50.0	11.1	102

To further examine the local economy of the groups of districts, the equalized valuation per pupil was related to the proportion of property in farms and in resident property (Table 26). The thirty-four districts having an equalized valuation of less than $15,000 had 28.6 per-

cent of its taxable wealth in farms whereas the eighteen districts with $50,000 or more of their equalized valuation per pupil had only 5.0 percent of its taxable property in farms. Of greater significance is the relation of equalized valuation per pupil to the proportion of taxable property owned by all permanent residents. This proportion declines from three-fourths for districts having less than $15,000 of equalized valuation per pupil to slightly more than one-third for districts having an evaluation per pupil of $50,000 or more. In other words, as equalized valuation per pupil increases, the proportion of that property owned by non-residents (non-voters) also increases and in general reduces the tax burdens on permanent residents (voters), thereby reducing tax burdens and permitting wealthier districts to provide a more liberal support for schools.

Table 26. Relation of Equalized Valuation per Pupil to Proportion of Taxable Property in Farms and to Proportion Owned by Residents.

Equalized valuation per ADM	Number of districts	Average equalized valuation		Percent of property in 1957	
		per pupil	Total in $000's	In farms	Owned by residents
Under $15,000	34	$13,002	$2,801	28.6	74.9
$15,000 to $19,999	38	17,221	2,903	18.4	64.7
$20,000 to $24,999	21	22,276	5,505	19.2	60.0
$25,000 to $29,999	13	27,123	4,739	11.9	56.3
$30,000 to $39,999	17	34,854	4,802	10.2	45.5
$40,000 to $49,999	13	45,229	7,881	6.0	44.0
$50,000 and over	18	70,121	7,580	5.0	35.3
All districts	154	$24,800	$4,814	16.7	58.3

The relation of equalized valuation per pupil to school expenditures and to school taxes is indicated in Table 27. As equalized valuation per pupil increased, the average expenditures per elementary pupil also increased. The relationship is not so apparent with respect to high school pupils where expenditures are influenced by whether or not a high school is maintained, and by appropriations for transportation to high school. However, when all grades are considered, the expenditures per pupil increased consistently with an increase in the per pupil valuation. For school districts having an equalized valuation under $25,000 and expenditures below $375 per pupil, the tax rate per $1,000 was above $21. The tax rate declined materially for each group of districts having an evaluation per pupil above $25,000 to a rate of $9.25 for districts having $50,000 or more of taxable property per pupil. Moreover, the average amount of property tax per pupil increased as total valuation per pupil increased, again indicating ability to give liberal support for

schools while enjoying a low tax rate when taxable wealth per pupil is high and a large proportion of the tax load is paid by non-residents.

Table 27. Relation of Equalized Valuation per Resident Pupil to School Expenditures and Property Taxes.

Equalized valuation per ADM	Number of districts	Average School expenditures per pupil			Average school tax rate per $1,000	Average property tax per pupil	Average percent of prop. tax for schools
		Elementary	High school	All grades			
Under $15,000	34	$298	$445	$329	$21.27	$306	64.9
$15,000 to $19,999	38	308	484	357	21.94	377	71.5
20,000 to 24,999	21	339	470	372	21.06	469	74.3
25,000 to 29,999	13	363	525	412	18.90	513	69.9
30,000 to 39,999	17	369	551	412	14.34	499	61.5
40,000 to 49,999	13	410	519	436	13.52	610	64.3
50,000 and over	18	477	516	484	9.25	623	56.2

Summary

The property tax in New Hampshire has been increasing during the past twenty-five years, largely as a result of rising costs of public education. Equal educational opportunity is not apparent because of extreme variations in the social and economic conditions of local districts or towns. This study has attempted to determine the existence or non-existence of definite patterns of expenditures or economies of scale by the local rural school districts.

When relating the number of pupils or population to expenditures per pupil, the averages indicate some economies of scale. The deviations from average are great particularly among districts of small population and a correspondingly small number of pupils. This divergence declines and, in fact, becomes quite narrow among the larger districts. The amount of variance, however, cannot be explained on the basis of population alone.

The 154 districts were grouped according to equalized valuation per pupil without reference to population or any other grouping. High taxable wealth per pupil is associated with a small proportion of the taxable property in farms and in total resident property, and with a large amount owned by non-residents. The proportion of taxable property owned by residents declines from about three-fourths to one-third as equalized valuation increases above $15,000. Expenditures per elementary pupil increases rapidly with an increase in taxable wealth per pupil. This relationship is not so apparent for high school pupils.

Costs per pupil are extremely high for small high schools. Expenditures per high school pupil are much less for districts not maintaining a high school, regardless of the number of pupils. The average costs per elementary pupil declines as the number of pupils increases. However, six districts which maintain no schools and have fewer than 100 pupils, send all pupils to neighboring districts and thereby avoid high costs per pupil. There is no general tendency for expenditures per pupil to decline under conditions of high tax rates or a decline in population. The distribution of population according to age groups is not of sufficient significance to justify further investigation in relation to costs.

In general, school districts having a large proportion of taxable property in farms, also have a large proportion of taxable property owned by residents. The pattern here is for low expenditures per pupil. Teachers' salaries are lower and high school transportation is not provided. There is no evidence here of ability to provide equalized educational opportunity, even at high tax rates. Those districts having less than forty percent of taxable wealth owned by residents have a high equalized valuation per pupil and per capita. The school expenditures

per pupil are high while enjoying low tax rates. This relationship is not so apparent among districts having a population in excess of 1,000.

Tax rates decline rapidly with increases in equalized valuation per pupil in spite of larger expenditures per pupil, but the total amount of property taxes per pupil increases with an increase in taxable wealth per pupil, as might be expected.

The mere fact that a large proportion of the local school budget is obtained from local taxes, mostly on property, is not conducive to equal educational opportunity, particularly among small rural districts which vary extensively with respect to social and economic conditions. Improvement in educational quality and facilities will come through state aid or some reorganization of districts.

Chapter 198 of the Revised Statutes provides for "Foundation Aid" for the purpose of providing more equal educational opportunity throughout the state. The state provides money over and above the proceeds of a tax of $14 per thousand dollars of equalized valuation of each district. The legislature has never approved adequate funds to fully meet the intent of Chapter 198.

Revenue from the "Sweepstakes" is distributed to school districts on the basis of number of pupils. A small rural district with few pupils receives very little help from this source.

Small rural districts should give serious study and thought to the organization of a cooperative school district, or a regional enrollment area, as provided for in Chapters 195, 195A and 195B of the Revised Statutes. Such an organization usually requires new facilities to provide for more pupils and an improved program. State aid for such construction is forthcoming.